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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/788,036	02/16/2001	James A. Fitch	42365-00450	5261
46670	7590	02/09/2005	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW/22395 TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			CRAYER, CHARLES R	
			ART UNIT	PAPER NUMBER
			2682	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/788,036

**Applicant(s)**

FITCH ET AL.

**Examiner**

Charles R Craver

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17 and 19-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20, 21, 27 and 28 is/are allowed.
- 6) ☒ Claim(s) 17, 18 and 22-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

Claim 26 is objected to because of the following informalities: claim 26 is dependent upon itself. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 17, 22 and 24-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Baynham, US Pat 6,198,922, of record.

**Claims 17 and 25:** Baynham discloses a method for locating a mobile station in a geographical zone of an arbitrary shape including establishing a hierarchical data structure representing an area of interest including a first layer of cells and a second layer of microcells, and establishing a zone definition by reference to the data structure wherein the identification definition data identifies a cell and a microcell, receiving a location associated with the mobile station and determining whether or not the mobile station is in the location zone by using the location and the data structure including using the cell and microcell information and flagging a cell (col 9 line 44-col 10 line 54,

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col 11 lines 3-31). **Claim 22** is the inherent physical manifestation of the method of claim 17, and as such is rejected for the same reasons set forth above. **Claim 26:** Baynham discloses establishing a first level representing the geographical are of interest, a second level including a number of subcells, and a third level including a number of sub-subcells representing secondary subregions (col 9 lines 44-63, col 10 lines 29-41).

**Claim 24:** Baynham discloses a method for determining whether a wireless station is located within a geographical zone that is of substantially any shape, the method comprising establishing a hierarchical data structure for representing an area of interest including the geographical zone, the hierarchical data structure including a first level where the area of interest is represented by cells and a second level where the area of interest is represented by subcells, said subcells of said second level corresponding to smaller geographical areas than said cells of said first level;

establishing a geographical zone definition for said geographical zone by reference to said hierarchical data structure wherein said geographical zone definition includes information identifying at least one identified cell of said first level and at least one identified subcell of said second level such that said geographical zone is collectively defined by said identified cells and subcells (col 9 line 18-64);

receiving a location associated with a wireless station; and

determining whether or not the location associated with the wireless station is within the geographical zone by using said location associated with the wireless station and said geographical zone definition including said identified cells and subcells,

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wherein said step of determining is facilitated by use of both said identified cells and said identified subcells in said geographical cell definition (col 11 lines 3-42), wherein said step of establishing said geographical zone definition comprises

identifying a set of subcells corresponding to said geographical zone and storing first zone information relative to said set of subcells;

identifying, from said set of subcells, a subset of said subcells corresponding to a particular cell of said first level of said hierarchical data structure; and

storing second zone information generally corresponding to said first zone information, but wherein information regarding said subset of subcells is replaced with information regarding said particular cell of said first level of said hierarchical data structure, thereby facilitating storage and processing of said geographical zone definition (col 9 line 64-col 11 line 2).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baynham.

While disclosing applicant's inventions of claim 17 and 22 above, Baynham fails to disclose a quadtree structure. However, given that the use of a quadtree structure

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was well known at the time of the invention, the examiner takes Official Notice of such a feature, asserting that one of ordinary skill in the art at the time of the invention would have found the use of such a standard spatial indexing method obvious.

### ***Allowable Subject Matter***

Claims 20, 21, 27 and 28 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 20 and 27 teach towards a method for reconstructing a representation of an area of interest in a wireless telecommunication application including receiving a map of the area of interest, vectorizing the boundaries to define a polygon, establishing a hierarchical data structure including a first level of whole cells and a second layer of smaller subcells underneath the first cells, and establishing for at least one cell of the first layer and at least one subcell of the second layer indicators that indicate that the cell and subcell identify the polygon, and therein the indicators are used to determine if a mobile station location is within said polygon.

### ***Response to Arguments***

Applicant's arguments with respect to claims 17, 19, 22 and 23 have been considered but are moot in view of the new ground(s) of rejection.

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**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schultz discloses locating means.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**Or faxed to:**

(703) 872-9306 for both formal and informal/draft communications, labeled as such.

Hand delivered responses should be brought to Crystal Plaza II, 200 South 20<sup>th</sup> St, Arlington VA, first floor (receptionist).

Any inquiry concerning this or earlier communications from the examiner should be directed to examiner Charles Craver at (703) 305-3965.

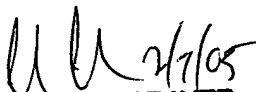
If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached at (703) 308-6739.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at (703) 305-4700.

CC

C.Craver

February 7, 2005

  
CHARLES CRAVER  
PRIMARY EXAMINER